

ADMINISTRATIVE MESSAGE

ROUTINE

R 301320Z AUG 03 ZYB PSN 525737I29

FM COMNAVSURFLANT NORFOLK VA//N7//

TO NAVSURFLANT SHIPS
EWTGLANT NORFOLK VA//N5//

INFO COMLANTFLT NORFOLK VA//N7//
COMNAVSURFOR SAN DIEGO CA//N7//
COMSUBLANT NORFOLK VA//N3/N7//
COMSECONDFLT
COMNAVAIRSYSCOM PATUXENT RIVER MD//PMA248//
PEO IWS WASHINGTON DC//1E//
EWTGPAC SAN DIEGO CA//N5//
FACSFAC VACAPES OCEANA VA//N3/N7//
FACSFAC JACKSONVILLE FL//N3/N7//
TACTS NAS OCEANA VA//IMPASS//
CG II MEF//G3/NGLA//
CG II MEF//G3/NGLA//
CG SECOND MARDIV//G3/NGLO//
CG SECOND MARDIV//G3/NGLO//

THIS IS A 2 SECTIONED MSG COLLATED BY MDS
UNCLAS //N03570//

MSGID/GENADMIN/COMNAVSURFLANT/-/AUG//

SUBJ/NAVAL SURFACE FIRE SUPPORT FIREX I UTILIZING INTEGRATED MARITIME
/PORTABLE ACOUSTIC SCORING AND SIMULATION SYSTEM (IMPASS)//

REF/A/DOC/CNSF/07APR2003//

REF/B/DOC/CNSF/08NOV1995//

REF/C/DOC/FACSFAC VACAPES/02JAN2001//

REF/D/DOC/FACSFAC JACKSONVILLE/01MAY2002//

REF/E/DOC/NWDC/02JAN2001//

NARR/REF A IS CNSF SURFACE FORCE TRAINING MANUAL CHANGE 1. REF B
IS CNSL-CNSP INSTRUCTION 3502.3 BULLETIN 202 TO THE SFTM. REF C
IS FACSFAC VACAPES OPAREA MANUAL. REF D IS FACSFAC JAX OPAREA

MANUAL. REF E IS FXP-5B CHANGE 1.//
POC/HASSELBERGER/OSCS/COMNAVSURFLANT N734/LOC:NORVA/TEL:(757)836-3067
/TEL:DSN 836-3067/EMAIL:SHASSELBERGER(AT)CNSL.SPEAR.NAVY.MIL//

RMKS/1. THE FOLLOWING GUIDANCE IS PROVIDED TO IMPLEMENT IMPASS AS THE LIVE FIRE RANGE FOR CONDUCT OF NSFS QUALIFICATIONS IN ATLANTIC FLEET.

2. IMPASS OVERVIEW. IMPASS PROVIDES THE ABILITY TO CONDUCT COMPLETE FIREX MISSION PROCEDURES AND SCORE FALL OF SHOT. THE SYSTEM CONSISTS OF FIVE BUOYS DEPLOYED TO CREATE A "SCORING RANGE". EACH BUOY IS GPS EQUIPPED AND HAS RF CONNECTIVITY TO RF REPEATERS ON THE SHIP. A SIXTH BUOY IS LASHED TO THE SHIP TO SERVE AS OWNERSHIP REFERENCE FOR THE IMPASS MASTER CONTROLLER LAPTOP. BUILD TWO WILL HAVE A GPS MODULE BUILT INTO THE MASTER CONTROLLER ELIMINATING THE NEED FOR A REFERENCE BUOY. THE MASTER CONTROLLER LAPTOP IS POSITIONED ON THE BRIDGE AND SERVES AS THE IMPASS OPERATOR STATION TO EXECUTE THE FIREX SCENARIO, SELECT TARGET LOCATIONS, AND SCORE INITIAL SALVO ERROR (ISE). A SEVENTH BUOY IS PROVIDED AS A SPARE.

A. THE IMPASS SOFTWARE HAS ALGORITHMS TO COMPUTE ISE BASED ON THE SOUND VELOCITY PROFILE (SVP) IN THE BUOY FIELD. THE SVP IS THE MOST CRITICAL COMPONENT OF THE COMPUTATION. THE BUOY WILL DETECT AN IMPACT OF THE PROJECTILE AS IT HITS THE WATER AND PASS THE TIME OF THAT TRIGGER DETECTION AS WELL AS THE BUOY'S CURRENT GPS POSITION TO THE MASTER CONTROLLER. THE MASTER CONTROLLER WILL TAKE ALL TRANSMITTING BUOY TIMES AND POSITIONS TO FIGURE A BEST MATHEMATICAL FIT AND PRESENT THE OPERATOR WITH AN ISE ACCURATE TO WITHIN 10 METERS. THIS OCCURS IN REAL TIME AND ALLOWS IMMEDIATE CORRECTIONS IN DEFLECTION AND RANGE TO PLACE THE NEXT FALL OF SHOT ON TARGET.

B. SVP ALSO CONTRIBUTES TO INITIAL BUOY DEPLOYMENT DIMENSIONS. THE NORMAL DEPLOYMENT FIELD PATTERN IS A PENTAGON WITH 1600 METER SPACING. DEPENDING ON ENVIRONMENTAL CONDITIONS INCLUDING SVP GRADIENT, THE FIELD DIMENSIONS MAY HAVE TO BE REDUCED TO 1000 METERS TO ENSURE DIRECT PATH FROM THE IMPACT TO THE BUOY. BUOY FIELD DIMENSIONS WILL BE DECIDED BY EWTGLANT BASED ON XBT DERIVED SVP.

3. SCHEDULING IMPASS EVENTS. FIREX I QUALIFICATION WILL BE COMPLETED IAW REFS A AND B. THE SHIP WILL REQUEST A ONE WEEK NSFS FORMAL COI (J-113-0163 MK 34 OR J-113-0167 MK 86), AND AN AMW-2-SF FIREX I FROM EWTGLANT NSFS OIC AND SCHEDULER AT 462-7309. THE ONE WEEK COI WILL SERVE AS AN AMW-1-SF CERTIFICATION TO CONDUCT A FIREX I USING IMPASS. THE FIREX I MUST BE WITHIN 90 DAYS OF CERTIFICATION. REF B DETAILS TEAM COMPOSITION, AND TURNOVER OF PERSONNEL EFFECTS ON M-RATINGS. THE NSFS WEEK OF TRAINING AND CERTIFICATION MUST BE FREE OF CONFLICTING EVENTS IE: BGIE, C5RA, FEP, POWER AND COMBAT SYSTEM AFFECTING INSTALLATIONS ETC.

A. A MINIMUM OF THREE DAYS SHOULD BE THE GENERAL GUIDELINE FOR IMPASS FIREX I EVENT SCHEDULING. DAY ONE: GET UNDERWAY AND EWTGLANT BRIEF THE EXERCISE. DAY TWO: COMPLETE THE FIREX I. DAY THREE: A BACK UP DAY IN CASE OF INCLEMENT WEATHER OR GUN CASUALTY, AND RETURN TO HOMEPORT.

B. SHIPS SHOULD MAINTAIN PROFICIENCY BETWEEN FIREX I AND II EVENTS WITH CSTT TEAMS AND HAVE THE NSFS TEAM TRAINED PRIOR TO THE FORMAL COI CONVENING. THE NSFS TEAM ATTENDING THE COI SHOULD CONSIST OF ONLY THOSE CREW MEMBERS THAT WILL MAKE THE NEXT DEPLOYMENT SO THAT THE SHIP CAN PROVIDE NSFS SERVICES IN THE EXPECTED THEATER. A MINIMUM OF TWO CSTT MEMBERS WILL ATTEND THE TRAINER TO PROVIDE CONTINUITY AND SELF TRAIN CAPABILITY.

C. EWTGLANT WILL CONTACT NSWC CORONA DET OCEANA FOR DELIVERY OF THE IMPASS SYSTEMS TO THE SHIP. TO SCHEDULE A FIREX I, THE SHIP MUST PROVIDE EWTGLANT WITH DATE, LOCATION INCLUDING PIER, AND TIME OF DELIVERY AND PICK UP. THE SHIP WILL SIGN FOR CUSTODY FROM, AND TURN OVER THE SYSTEM TO, NSWC CORONA DET OCEANA PERSONNEL. NORMALLY, THE SHIP MUST BE INPORT PIERSIDE TO ACCEPT DELIVERY OF IMPASS. THE SYSTEM CONSISTS OF TEN BOXES 2.5 BY 2.5 BY 4.5 FT, ONE BOX 8 BY 2.5 BY 0.67FT, TAKES 320 CUBIC FEET OF SPACE, AND WEIGHS A TOTAL OF 1650 LBS. A CG OR DDG FLT IIA CAN EASILY STOW THE SYSTEM IN THE HELO HANGER WITHOUT AIRCRAFT EMBARKED. THE SYSTEM CAN ALSO FIT IN A SHIPS WINDBREAK.

D. IMPASS SUPPORT TEAM BASIC COMPOSITION IS AN OIC, ONE SPOTTER AND ONE SYSTEMS TECHNICIAN. THE TEAM MAY BE EXPANDED TO PROVIDE TRAINING OPPORTUNITIES FOR THE IMPASS SUPPORT TEAM OR OBSERVERS. PIERSIDE TEAM EMBARK/DEBARK IS PREFERRED, HOWEVER, THEY MAY BE PICKED UP OR DROPPED OFF VIA RHIB OR HELO IF REQUIRED TO MEET SHIP TIMELINE AND IF APPROVED BY CNSL. SHIPS WILL HAVE TO ARRANGE FOR RHIB OR HELO TRANSFER TO THE SHIP OR BACK TO SHORE.

E. STANDARD OPAREA REQUESTS ARE REQUIRED PER REFS C AND D TO SCHEDULE THE EVENT. EARLY REQUESTS ALLOW OPAREA SCHEDULERS THE TIME REQUIRED TO DECONFLICT WITH OTHER AREA USERS. PRIMARY IMPASS OPAREAS FOR VACAPES ARE W-72 1C1 AND 1C2 WITH AN ALTERNATE OF W-386 5C/5D. PRIMARY CHERRY POINT OPAREA IS W-122 AREA 14. PRIMARY JAX OPAREA IS W-158 CC. REQUESTS SHOULD INCLUDE ALL AVAILABLE HOURS OF SUNLIGHT AND ALTITUDE CEILING OF SURFACE TO 5KFT. FIREX I MISSION REQUIREMENTS CAN BE MET AT THE DESIRED TARGET RANGES OF 10-14 KYDS USING STANDARD CHARGE GIVING A MAX ORDINATE BELOW 3KFT. FIREX I REQUIRES OBSERVATION OF A MISSION USING REDUCED CHARGE; SHIPS WILL ENSURE REDUCED CHARGE MISSIONS ARE FIRED FROM A MAXIMUM RANGE OF 11,300 YDS TO MAINTAIN A 5KFT MAX ORDINATE. ENSURE A BACK-UP DAY IS REQUESTED IN THE EVENT OF BAD WEATHER.

F. SHIPS PLANNING OUT NSFS TRAINING AND QUALIFICATION SHOULD SCHEDULE A FTSC GROOM FOR THEIR GFCS. LESS THAN 100 PERCENT SYSTEM OPERATION WILL RESULT IN A LOSS OF VALUABLE TRAINING TIME AND ASSETS, WASTE UNDERWAY RANGE TIME, AND COULD ULTIMATELY RESULT IN A LOSS OF THE TRAINING OPPORTUNITY ALTOGETHER.

4. FIREX I EXECUTION. FIREX I EVENTS WILL BE GRADED IAW REF E. FIREX EVENTS OR INDIVIDUAL MISSIONS WILL NOT BE RE-FIRED TO IMPROVE SCORE FOR BATTLE E PURPOSES. REF E STATES A SHIP MAY RE-FIRE TWO FAILED MISSIONS. A THIRD FAILED MISSION RESULTS IN IMMEDIATE FIREX I FAILURE. IN THE EVENT OF A FAILURE, THE SHIP MAY RE-FIRE A COMPLETE FIREX I. IF THE FAILURE IS DUE TO PROCEDURAL ERRORS EWTGL AS EXECUTIVE AGENT FOR CNSL WILL DECIDE IF ADDITIONAL REMEDIAL TRAINING IS REQUIRED PRIOR TO SHOOTING ANOTHER FIREX.

A. AMMUNITION REQUIRED TO COMPLETE A FIREX I IS APPROX 100 RDS OF HE AND 8 RDS OF ILLUM. IMPROVEMENTS TO IMPASS SHOULD ALLOW SCORING FIREX I'S USING BL&P AND IS THE PREFERRED ROUND WHEN WATER CONDITIONS PERMIT THE USE OF BL&P(WATER TEMP SOUND VELOCITY PROFILE).

B. THE SHIP WILL EXPEND AN XBT TO CALCULATE SVP IN THE BUOY FIELD AREA PRIOR TO THE EVENT TO ESTABLISH PATTERN DIMENSIONS. ADDITIONAL XBTS WILL BE DROPPED AT THE SECOND AND FOURTH IMPASS BUOY DROP.

C. THE SHIP IS AUTHORIZED TO CONDUCT A PACFIRE PER THE MRC PRIOR TO THE EXERCISE. ONCE THE GUN IS WARMED UP, EWTGLANT WILL PROVIDE UP TO THREE PRACTICE MISSIONS TO CALIBRATE IMPASS, THEN COMMENCE THE GRADED FIREX. EWTGLANT WILL NOT PROVIDE TRAINING, THE SHIP IS EXPECTED TO BE READY FOR GRADING AND CONDUCT THE FIREX AS IF THEY WERE FIRING AT A LAND BASED RANGE.

D. THE FIRES SUPPORT AREA IS DESIGNATED AS BETWEEN 10 KYDS AND 14

KYDS FROM THE CENTER OF THE IMPASS BUOY FIELD. DURING THE FIREX THE SHIP WILL ATTEMPT TO MAINTAIN A RADAR TRACK AND LOG, AS WELL AS A NAVIGATION CHART PLOT OF THE BUOYS EVERY FIFTEEN MINUTES.

E. THE SHIP WILL RETRIEVE THE BUOYS UPON COMPLETION OR AT LEAST TWO HOURS PRIOR TO SUNSET. PREFERRED METHOD IS RHIB RECOVERY. IN THE EVENT THAT SEAS INCREASE BEYOND RHIB OPERATIONAL LIMITS PRIOR TO RECOVERY, THE SHIP MAY RECOVER BUOYS OVER THE SIDE WITH GRAPPLING HOOKS. THIS IS NOT THE DESIRED METHOD FOR NORMAL RECOVERY, DUE TO THE SENSITIVITY OF THE IMPASS BUOYS.

5. MARINE MAMMAL AND SEA TURTLE MITIGATION. EVERY FIREX EVENT MUST BE APPROVED THROUGH THE CFFC LEGAL OFFICE TO ENSURE COMPLIANCE WITH FEDERAL REGULATIONS REGARDING MARINE MAMMALS AND SEA TURTLES. SHIPS WILL VISUALLY SEARCH FOR MARINE MAMMALS AND SEA TURTLES DURING THE ENTIRE EVENT. ALL MARINE MAMMALS AND SEA TURTLES OBSERVED WILL BE REPORTED IN AN INFORMAL AFTER ACTION REPORT FROM THE FIRING SHIP TO INCLUDE COMMENCEMENT AND COMPLETION OF RANGE OBSERVATION, BUOY DEPLOYMENT, FIREX EXECUTION, AND RETRIEVAL TIMES, AND A BRIEF NARRATIVE OF MARINE MAMMAL AND SEA TURTLE SIGHTINGS LISTING THE APPROX NUMBER OF MARINE MAMMALS AND SEA TURTLES, LOCATION IN LATITUDE/LONGITUDE AND RELATION TO THE SHIP, DIRECTION OF TRAVEL, SPECIES IF POSSIBLE, AND NATURE OF ACTIVITY THE MARINE MAMMALS AND SEA TURTLES WERE ENGAGED IN. ALL BRIDGE WATCHSTANDERS ARE REQUIRED TO VIEW THE FOLLOWING VIDEOS AVAILABLE THROUGH CNSL POC: "RIGHT WHALES AND THE PRUDENT MARINER", "THE US NAVY PROTECTING MARINE LIFE", AND "THE US NAVY AND THE PROTECTION OF RIGHT WHALES IN THE SOUTHEASTERN UNITED STATES".

6. LIMITATIONS. IMPASS WILL BE USED IN BEAUFORT SEA STATE TWO OR BELOW. THE FIREX WILL BE SUSPENDED AND BUOYS RECOVERED IF WEATHER DETERIORATES AND SEAS EXCEED STATE TWO.

A. EWTGLANT WILL SUSPEND THE FIREX IF RF CONNECTIVITY IS LOST WITH ANY BUOY. THE SHIP WILL PLOT THE LAST KNOWN GPS POSITION OF THE BUOY AND DRIVE THROUGH THE LAST KNOWN POINT TO THE ESTIMATED POSITION BASED ON THE LATEST BUOY SET AND DRIFT. THE SHIP MAY REPLACE THAT BUOY WITH THE SPARE AND CONTINUE THE EVENT. IF THE BUOY IS NOT FOUND, CONDUCT A 500 YARD EXPANDING SQUARE SEARCH. A DECISION MATRIX IS BRIEFED BY EWTGLANT DURING THE PRE-EX BRIEF. CONTACT CNSL SDO AT DSN 836-3133 IF UNABLE TO RECOVER ALL BUOYS. THE SHIP CO WILL MAKE A RECOMMENDATION TO CONTINUE OR SUSPEND SEARCH.//

BT
NNNN

Section 1: PSN 525737I29
Section 2: PSN 525735I27